

Appl. No.: 10/708,800  
 Reply to Office Action Mailed 06/20/2005

Declaration under 37 CFR 1.131

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**RECEIVED  
CENTRAL FAX CENTER**

In re application of: PRABHAKARAN et al  
 Appl. No.: 10/708,800  
 Filed: March 26, 2004  
 For: Potentiometer Providing a High Resolution

Art Unit: 2857

SEP 12 2005

Examiner: Assouad, Patrick J

Atty. Docket: H0005591

**Declaration Under 37 CFR 1.131**

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Sir:

We, Joy P Prabhakaran and Jayaram B Srinivasmurthy, declare as follows:

1. We are the co-inventors of claims 1-13 examined in the Office Action Mailed on June 20 2003, in the above-identified patent application.
2. Attached hereto are Exhibits A and B, which demonstrate the conception and reduction of at least claims 1-5 and 8-11 on a day prior to June 12 2003, as explained below. The dates and other details (in the exhibits), believed not to be relevant, are whited out or removed.
3. Exhibit A contains a sequence of electronic mails (Emails) in chronological order (from bottom to top of Exhibit A): (E1) from Mr. VasanthKumar SubbeGowda to protomlb@yahoo.co.in, sending a carbon copy to prototech@vsnl.net, Mr. Ramesh Lingaiah Mr. Jayaram Srinivasmurthy and Mr. Joy Prabhakaran; (E2) from PROTOTECH (Bangalore) to VasanthKumar, SubbeGowda and protomlb@yahoo.co.in, sending a carbon copy to Mr. Ramesh Lingaiah (IE10), Mr. Jayaram Srinivasmurthy (IE10) and Mr. Joy Prabhakaran, and signed by M.Rajaramrao for PROTOTECH; (E3) From Mr. VasanthKumar SubbeGowda to PROTOTECH(Bangalore), Mr. VasanthKumar SubbeGowda and protomlb@yahoo.co.in, sending a carbon copy to Mr. Ramesh Lingaiah, Mr. Jayaram

Appl. No.: 10/708,800  
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Srinivasmurthy (IE10) and Mr. Joy Prabhakaran; and (E4) From Mr. Ramesh Lingaiah to B. Raghavendra, sending a carbon copy to Mr. VasanthKumar SubbeGowda.

4. All the emails of Exhibit A were sent prior to June 12 2003.
5. Email E1 confirms that a 'Gerber' (explained below), prepared under our direction, was sent to Mr. Rajaram (also referred to as M. Rajaramrao in the remaining emails) of PROTECH on a day prior to June 12 2003.
6. Gerber refers to an electronic file which contains the specifications (including, components and connectivity) of a printed circuit board (PCB) to be fabricated. Gerber files can be generated using various Computer Aided Design (CAD) tools.
7. Mr. VasanthKumar SubbeGowda, an employee of Honeywell International (India) Pvt. Ltd, prepared the Gerber under our direction on a day prior to June 12 2003.
8. The specifications of the Gerber (referred in Exhibit A) contained at least the concepts underlying claims 1-5 and 8-11.
9. PROTOECH provides the service of fabricating PCBs from the corresponding Gerber files.
10. Email E2 confirms that PROTOECH received the GERBER and provided a price quotation.
11. Email E3 from Mr. DS Vasanthakumar confirms that PROTOECH was authorized to fabricate the requested PCB (on a day prior to June 12 2003).
12. On a day prior to June 12 2003, we received the ordered product from PROTOECH.
13. Prior to June 12 2003, we conducted tests on the received product, a portion of the report of which is appended hereto as Exhibit B.
14. The specification of the Gerber noted above contained two potentiometers ("parallel potentiometers") connected in parallel, and the combination of parallel potentiometers was connected in series with a third potentiometer. Each of three

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potentiometers corresponded to Part Number AD8403 available from Analog Devices Inc., having an address at One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106, U.S.A., Telephone Number: 781/329-4700. Thus, the tests corresponding to Exhibit B were performed with such a configuration.

15. Exhibit B contains various columns under INPUT and OUTPUT, and several rows with each row representing a test case.

16. Under INPUT of Exhibit B, the ideal resistance values expected to be offered by the two parallel potentiometers are indicated by the columns under R1 and R2 respectively. Under each of R1 and R2, there are two columns entitled code and value. Code refers to an input value provided to control the corresponding resistance value, and 'value' represents the 'ideal resistance value' assuming the corresponding potentiometer provides increased resistance values of equal steps in response to increase in the code values.

17. The three potentiometers did not offer increments in equal step sizes and this was as per the specifications provided by the manufacturer. Column Rm in the OUTPUT section indicates the measured resistance value of the third potentiometer noted above for each test case. The resistance value was measured using a multi-meter.

18. The three potentiometers were from the same vendor having the same product specification, and it is thus believed that all the three potentiometers operated substantially similarly. Thus, the actual resistance values offered by each of the two parallel potentiometers in each test case, is believed to equal the corresponding value in the column Rm.

19. Column Rp represents the effective resistance of the two parallel potentiometers, as measured by a multi-meter. Since the two resistance values R1 and R2 have been chosen to be equal, the values in column Rp need to ideally equal half the value in column Rm, which is observed to be the case within tolerable error levels for this embodiment/purpose.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under

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Section 1001 of Title 18 of the United States Code and that such willful false statements  
may jeopardize the validity of the application or any patent issued thereon.

September 01 2005

  
Joy P Prabhakaran

September 01 2005

  
Jayaram B Srinivasamurthy

**From:** Ramesh, Lingaiah (IE10)  
**Sent:**  
**To:** Raghavendra, B (Work Environment & Admin.) (IE10)  
**Cc:** VasanthKumar, SubbeGowda (IE10)  
**Subject:** PO on "Prototech"

**Application Serial No.: 10/708,800**  
**Exhibit A**  
**Redacted**

Raghu,  
 Pl release the PO on "Prototech" for the below mentioned part no asap. The quotation is attached herewith for your reference.

regards,  
 Ramesh

-----Original Message-----

**From:** VasanthKumar, SubbeGowda (IE10)  
**Sent:**  
**To:** PROTOTECH(Bangalore); VasanthKumar, SubbeGowda (IE10); protomlb@yahoo.co.in  
**Cc:** Ramesh, Lingaiah (IE10); Jayaram, Srinivasmurthy (IE10); Joy, Prabhakaran (IE10)  
**Subject:** RE: AWAITING CLEARENCE.

Dear Sir,

Thanks for the offer you have made , You can proceed with the manufacturing of PCB's . Take this as a E -Mail confirmation.  
 You can be in touch with Ramesh Lingaiah for the PO .

We would like to have Standard Quotation for 4 layer , 6 layer and 10 layer card.

Ramesh : Please arrange for the PO.

Thanks and Regards

**Vasanth Kumar D S**  
Honeywell

Honeywell Technology Solutions Lab  
 191/1, Doraisanipalya, Bannerghatta Road  
 Bangalore - 560076, INDIA  
 Email Id : vasanth.ds@honeywell.com  
 Fax : 91 - 80 - 6584750  
 Phone : 6588360 / 51197222 / 51109900  
 Extn : 2221

-----Original Message-----

**From:** PROTOTECH(Bangalore) [SMTP:prototech@vsnl.net]  
**Sent:**  
**To:** VasanthKumar, SubbeGowda (IE10); protomlb@yahoo.co.in  
**Cc:** Ramesh, Lingaiah (IE10); Jayaram, Srinivasmurthy (IE10); Joy, Prabhakaran (IE10)  
**Subject:** Re: AWAITING CLEARENCE.

Dear Sirs,

Refer to your mail and Received Gerber for the below mentioned type.

We are grateful to give our BEST OFFER.

Ref No: PROTO/MKTG/193/2002-2003  
DATE :

Application Serial No.: 10/708,800  
Exhibit A  
Redacted

BOARD REF :999-221-003-08-AOO  
BOARD TYPE :2 LAYERS  
BOARD THICKNESS :1.6 mm, 35 Microns  
BOARD DESCRIPTION :95.85 X 189.69 mm  
TAB CONNECTORS : 98 No.s PER P.C.B  
QNTY : 10 No.s

**P.C.B RATES, DELIVERY 4 WORKING DAYS**

**INITIAL DEVELOPMENT CHARGES (NRSC) FOR NEW JOBS**  
**INCLUSIVE OF PHOTO PLOTTING CHARGES & TAB CONNECTOR CHARGES.**

**TERMS & CONDITIONS**

Trust that the above offer is acceptable & we look forward for your kind confirmation at the earliest for the above mentioned Valued Order.

Thanking you & Assuring you of our BEST SERVICES all times.

Your's faithfully

**M.Rajaramrao**  
For PROTOTECH.

----- Original Message -----

From: VasanthKumar, SubbeGowda (IE10) <[Vasanth.DS@honeywell.com](mailto:Vasanth.DS@honeywell.com)<<mailto:Vasanth.DS@honeywell.com>>>  
To: <[protomlb@yahoo.co.in](mailto:protomlb@yahoo.co.in) <<mailto:protomlb@yahoo.co.in>>>  
Cc: <[prototech@vsnl.net](mailto:prototech@vsnl.net) <<mailto:prototech@vsnl.net>>>; Ramesh, Lingaiah (IE10) <[Ramesh.Lingaiah@honeywell.com](mailto:Ramesh.Lingaiah@honeywell.com) <<mailto:Ramesh.Lingaiah@honeywell.com>>>; Jayaram, SrinivasMurthy (IE10) <[Jayaram.SrinivasMurthy@honeywell.com](mailto:Jayaram.SrinivasMurthy@honeywell.com)>; Joy, Prabhakaran (IE10) <[Joy.Prabhakaran@honeywell.com](mailto:Joy.Prabhakaran@honeywell.com) <<mailto:Joy.Prabhakaran@honeywell.com>>>  
Sent:  
Subject: Gerber of two layer card from Honeywell partno.999-221-003-08 a00

>  
> Hello Mr. Rajaram /Sridhar  
>  
> Please find the attached Gerber for Manufacturing,  
> Part no 999-221-003-08 A00 ,  
> In case of any issues call me back .  
>  
> Ramesh : Please follow it up for quotation and PO  
>  
> Thanks and Regards  
> Vasantha  
>  
>  
>  
>  
> Vasantha Kumar D S  
> Honeywell  
> Honeywell Technology Solutions Lab  
> 151/1, Doraisanipalya, Bannerghatta Road  
> Bangalore - 560076, INDIA  
> Email Id : [vasanth.ds@honeywell.com](mailto:vasanth.ds@honeywell.com) <mailto:vasanth.ds@honeywell.com>  
> Fax : 91 - 80 - 6584750  
> Phone : 6588360 / 51197222 /51109900  
> Extn : 2221  
>  
>

**Application Serial No.: 10/708,800**

**Exhibit A**

**Redacted**

**Application Serial No.: 10/708,800**  
**Exhibit B**  
**Redacted**

INPUT				OUTPUT	
R1		R2		Rm	Rp
CODE	VALUE	CODE	VALUE		
0	40	0	40	41.2	20.7
1	43.9	1	43.9	47.6	23.8
2	47.8	2	47.8	51.6	25.4
3	51.7	3	51.7	56.2	28.1
4	55.6	4	55.6	59.8	29.5
10	106.3	10	106.3	107.9	53.4
11	110.2	11	110.2	114.9	56.9
30	231.1	30	231.1	240.9	119.4
31	235	31	235	247.3	122.7
50	355.9	50	355.9	373.2	185.3
51	359.8	51	359.8	380	188.7
80	543.1	80	543.1	574	284.2
81	547	81	547	582	286.5
A0	667.9	A0	667.9	710	352
A1	671.8	A1	671.8	716	356
C0	792.7	C0	792.7	844	418
C1	796.6	C1	796.6	851	422
E0	917.5	E0	917.5	978	484
E1	921.4	E1	921.4	984	488
F0	979.9	F0	979.9	1039	514
F1	983.8	F1	983.8	1048	520
FA	1018.9	FA	1018.9	1086	539
FA	1022.8	FB	1022.8	1092	542
FC	1026.7	FC	1026.7	1095	542
FD	1030.6	FD	1030.6	1100	545
FE	1034.5	FE	1034.5	1102	551.3
FF	1038.4	FF	1038.4	1108	550